

## ABSTRACT OF THE DISCLOSURE

A device which uses a detection circuit to determine whether an output current thereof is source-induced or load-induced, and the method therefor. The device which performs some type of operation based upon the determination as to whether the output current thereof is source-induced or load-induced, and method therefor. The detection circuit determines whether polarities of the output current and an output voltage are the same, and determines the output current to be source-induced if the polarities are the same and load-induced if the polarities are opposite each other. Such a device may have many applications, including use in systems where distinctions between source and load-induced currents are employed in feedback systems to control the system voltage source, systems where the system voltage source is not controlled, but other sources are controlled to influence a summation of voltages and currents at sensing locations, and systems for measurement instrumentation.

**BEST AVAILABLE COPY**